



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

P.J.

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/061,706	04/17/98	KEPHART	J Y0998-143

IBM CORPORATION
INTELLECTUAL PROPERTY LAW DEPARTMENT
PO BOX 218
YORKTOWN HEIGHTS NY 10598

LMC1/0727

EXAMINER	
BASHORE, W	
ART UNIT	PAPER NUMBER
2776	8
DATE MAILED: 07/27/00	

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/061,706

Applicant(s)

Kephart et al.

Examiner

William L. Bashore

Group Art Unit

2776



☒ Responsive to communication(s) filed on May 9, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-21 and 23-61 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-21 and 23-61 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2, 7

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2776

DETAILED ACTION

1. This action is responsive to communications: amendment filed on 5/9/2000 to the original application filed on 4/17/1998. IDS filed on 6/15/1998, and on 5/9/2000.
2. The Examiner acknowledges Applicant's submittal of missing references from IDS paper no. 2, filed on 6/15/1998.
3. The rejection of claims 13, 14, 16 under 35 U.S.C. 112 second paragraph has been withdrawn as necessitated by amendment.
4. Claim 33 remains rejected under 35 U.S.C. 112 second paragraph (please see 112 rejection).
5. The rejection of claims 11-20, 22-24, 27, 30, 33-36, 44-45, 61 under 35 U.S.C. 102(b) as being anticipated by Lewak has been withdrawn as necessitated by amendment.
6. The rejection of claims 21, 25-26, 28-29, 31-32, 47-49, 51, 60 under 35 U.S.C. 103(a) as being unpatentable over Lewak has been withdrawn as necessitated by amendment.
7. The rejection of claims 52, 56-59 under 35 U.S.C. 103(a) as being unpatentable over Lewak and Netscape has been withdrawn as necessitated by amendment.
8. The rejection of claims 37-43, 46, 50 under 35 U.S.C. 103(a) as being unpatentable over Lewak and Lang has been withdrawn as necessitated by amendment.
9. The rejection of claims 53-55 under 35 U.S.C. 103(a) as being unpatentable over Lewak, Lang, and Netscape has been withdrawn as necessitated by amendment.
10. Claims 11-21, 23-61 are pending in this case. Claim 22 has been canceled. Claim 1 is an independent claim.

Art Unit: 2776

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. **Claim 33 remains rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

In regard to dependent claim 33, the phrase, "*occurs instantly*" is indefinite. The Applicant's suggestion of changing said phrase to, "*occurs immediately*" will overcome this rejection. Although this suggestion is presented in Applicant's Remarks (p.13), it has not been implemented in amended claim 33 (p.6) of Applicant's amendment.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. **Claims 11-21, 23-36, 44-45, 47- 51, 60-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak et al. (hereinafter Lewak), U.S. Patent No. 5,544,360 issued August 1996, in view of Herz, U.S. Patent No. 6,029,195 issued February 2000.**

Art Unit: 2776

In regard to independent claim 11, Lewak teaches a method of suggesting file categories by correlating word patterns in a current file document with category descriptions utilizing an FC Manager (please see Lewak, column 8 lines 6-15, column 9 lines 50-55; compare with amended claim 11, *"classifying, with a classifier, a document..."*). Lewak does not specifically teach obtaining a plurality of most likely categorical labels. However, Herz teaches a method of generating for each user a customized rank-ordered listing of target objects most likely to be of interest to that user (please see Herz column 7 lines 10-16; compare with amended claim 11 *"...to obtain a plurality of most likely categorical labels"*). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the method of Herz to the method of Lewak, because of Herz's taught advantage of document suggestion, providing an efficient method of allowing users to select articles of interest from a large set of articles (please see Herz column 2 lines 40-42).

In addition, Lewak also teaches a method of a user interface, comprising a category window with category descriptions and types (please see Lewak, column 8 lines 31-38; compare with amended claim 11, *"displaying to the user, a representation of the plurality of most likely categorical labels"*).

In addition, Lewak also teaches a method whereby categories describing the current file can be selected by a user (please see Lewak, column 8 lines 61-65; compare with amended claim 11, *"receiving from the user, data representative of one or more selected categorical labels"*).

In addition, Lewak teaches a method whereby after category selection is completed by the user, the new category/file associations are stored within a File Information Directory (please see Lewak, column 8 lines 66-67, column 9 lines 1-4; compare with amended claim 11, *"labeling the document within the collection with the one or more selected categorical labels."*).

Art Unit: 2776

In addition, Lewak also teaches a method of an FC Manager running as a background process, checking the path of a previously saved file during “null events” for categorization (please see Lewak column 7 lines 55-67). Lewak does not specifically teach a method of incrementally retraining a classifier. However, Herz teaches a method of categorizing text messages utilizing a user target profile interest summary, said summary is automatically updated on a continuing basis (please see Herz column 7 lines 15-17; compare with amended claim 11 “*incrementally retraining a classifier to adapt to modifications of the collection.*”). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the method of Herz to the method of Lewak, because of Herz’s taught advantage of updating profiles, providing a way to keep a user profile updated so that it dynamically responds to changing interests (please see Herz column 7 lines 16-18).

In regard to dependent claim 12, Lewak teaches a method whereby a category named E-mail can be defined as linked to other categories, said other categories presented to the user upon selection of category E-mail for a particular file (please see Lewak column 15 lines 39-51; compare with claim 12).

In regard to dependent claim 13, Lewak teaches a method of opening a saved file and invoking an FC Manager with a “Categorize” command for category selection by the user (please see Lewak, column 8 lines 1-5; compare with claim 13).

In regard to dependent claim 14, Lewak teaches a method whereby upon the category of E-Mail is selected for a file, the user is given indication of related linked category descriptions (please see Lewak, column 15 lines 39-51; compare with claim 14).

Art Unit: 2776

In regard to dependent claim 15, Lewak teaches a method whereby linked category descriptions are indicated to the user by way of a distinctive style, or check mark, or a descriptive dialog box (please see Lewak, column 15 lines 5-55; compare with claim 15 lines 1-3, “...*labeling display buttons with the plurality of most likely categorical labels, and the displaying step comprises the step of displaying the labeled display buttons...*”).

In addition, Lewak also teaches a method of categorizing an opened file at the point of a first save to disk (please see Lewak column 7 lines 55-67; compare with claim 15 line 3, “...*with the document.*”).

In regard to dependent claim 16, Lewak teaches a method of a file manager display showing a column of file type category entries in alphabetical order, along with three other columns of categories, each column containing different entries in alphabetical order (please see Lewak, column 8 lines 31-38, Figure 5; compare with claim 16).

In regard to dependent claim 17, Lewak teaches a method whereby upon the selection of a categorize button on an open file, an FC Manager is run, producing a file manager display showing current categories (please see Lewak, column 8 lines 1-5, 31-38; compare with claim 17).

In regard to dependent claim 18, Lewak teaches a method whereby a “categorize” command is invoked by a user to run the FC Manager to categorize an open file (please see Lewak column 8 lines 1-5; compare with claim 18).

Art Unit: 2776

In regard to dependent claim 19, Lewak teaches a method whereby a “categorize” button is used to invoke the method as disclosed in claim 18 above (please see Lewak column 8 lines 1-3, column 9 lines 5-7; compare with claim 19).

In regard to dependent claim 20, Lewak teaches a method of a File Information Directory table (FID) comprising a set of columns containing file names, file locations, and categories associated with each file by a user (please see Lewak column 6 lines 16-22; compare with claim 20).

In regard to dependent claim 21, Lewak teaches a method of a file manager display showing categories and descriptions (please see Lewak column 8 lines 31-38). Lewak also discloses a method whereby linked categories of a selected category can be shown and selected (please see Lewak column 15 lines 39-51; compare with claim 21, “*receiving, from the user, data representative....the plurality of displayed categorizational shortcuts...*”). Lewak does not specifically teach a method of displaying (or selecting from) a standard list of all categorical labels. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate a standard list, because a “Full Lists” option is disclosed as an example of inhibiting category search contraction (see Lewak column 12 lines 29-31; compare with claim 21 “*...displaying a standard list of all categorical labels...*”, and “*...or the standard lists.*”). Applying this modification provides increased user selectability to the method of Lewak.

Art Unit: 2776

In regard to dependent claim 23, Lewak teaches a method whereby a user chooses a “categorize” command to re-categorize an already categorized file (please see Lewak column 9 lines 5-10; compare with claim 23).

In regard to dependent claim 24, claim 24 incorporates substantially significant subject matter as claimed in claim 20, and in further view of the following, is rejected as such.

Lewak teaches a method whereby a user makes a first save of a newly created file to disk (please see Lewak column 7 lines 55-57; compare with claim 24 “*receiving, from the user, addition data....into a tofolder*”).

In addition, Lewak also teaches a method whereby a File Control system retrieves the file path previously saved, and analyzes the saved file for categorization (please see Lewak column 7 lines 58-67; compare with claim 24 “*re-training the classifier in response to the addition data.*”).

In regard to dependent claim 25, with reference to the third paragraph of the rejection of claim 24, Lewak does not specifically teach a method of assigning the added document to a tofolder during re-training. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate the method of assigning, because Lewak suggests a method whereby categories which describe a current file are selected, causing new entries to be created in the FID containing the file data (along with file path associations), and associated categories (please see Lewak column 6 lines 17-22, column 8 lines 61-67, column 9 lines 1-4; compare with claim 25), providing increased file versatility to the File Control method taught by Lewak.

Art Unit: 2776

In regard to dependent claim 26, claim 26 incorporates substantially similar subject matter as claimed in claim 47, and is rejected as such.

In regard to dependent claim 27, claim 27 incorporates substantially similar subject matter as claimed in claim 24, and in further view of the following, is rejected as such.

Lewak teaches a method of deleting a file, which impacts the integrity of the identifiers in the FID (please see Lewak column 14 lines 40-43, 51; compare with claim 27 *"receiving from the user, deletion data...from a fromfolder"*).

In addition, Lewak also teaches a method whereby (on a Macintosh system), upon the deletion of a file, the Alias Record for the file is updated in the FID (please see Lewak column 14 lines 60-65; compare with claim 27 *"re-training the classifier in response to the deletion data."*).

In regard to dependent claim 28, with reference to the third paragraph of the rejection of claim 27, Lewak does not specifically teach a method of unassigning the removed document from the fromfolder during re-training. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate the method of unassigning, because Lewak suggests a method whereby upon file deletion, the Alias Record is updated in the FID, keeping the FID current after each attempted access (please see Lewak column 14 lines 40-43, 51, 60-65; compare with claim 28), providing increased file versatility to the File Control method taught by Lewak.

In regard to dependent claim 29, claim 29 incorporates substantially similar subject matter as claimed in claim 26, and is rejected as such.

Art Unit: 2776

In regard to dependent claim 30, claim 30 incorporates substantially similar subject matter as claimed in claim 24, and in further view of the following, is rejected as such.

Lewak teaches a method of moving a file to another directory, which impacts the integrity of the identifiers in the FID (please see Lewak column 14 lines 40-43, 44; compare with claim 30 *"receiving from the user, move data....to a destination folder"*).

In addition, Lewak also teaches a method whereby upon the moving of a file, a search is made to find the file, based upon creation date/time search criteria (please see Lewak column 14 lines 66-67, column 15 lines 1-7; compare with claim 30 *"re-training the classifier in response to the deletion data."*).

In regard to dependent claim 31, claim 31 reflects the combined subject matter of claims 25 and 28, and is rejected as such.

In regard to dependent claim 32, claim 32 reflects the combined subject matter of claims 26 and 29, and is rejected as such.

In regard to dependent claim 33, please note that the examiner interprets the phrase, *"occurs instantly"* as the following: *"occurs immediately"*.

Lewak teaches a method whereby a selected file that has been categorized may be recategorized by clicking on a "Categorize" button (please see Lewak column 9 lines 5-10; compare with claim 33).

In regard to dependent claim 34, claim 34 incorporates substantially similar subject matter as claimed in claim 33, and is rejected as such.

Art Unit: 2776

In regard to dependent claim 35, Lewak teaches a method whereby an File Control Manager analyzes a newly created file subsequent to a first save of said file (please see Lewak column 7 lines 55-67; compare with claim 35).

In regard to dependent claim 36, Lewak teaches a method whereby an FC Manager retrieves and analyzes a previously saved path against categorized files during periods of inactivity (please see Lewak column 7 lines 55-67; compare with claim 36).

In regard to dependent claim 44, Lewak teaches a method whereby an FC Manager initializes all data structures involved by reading data from related data files (FCT and FTD tables), as well as previously saved "last used" values (please see Lewak column 7 lines 39-4; compare with claim 44).

In regard to dependent claim 45, claim 45 incorporates substantially similar subject matter as claimed in claim 20, and in further view of the following, is rejected as such.

Lewak teaches a method of a FID table read into the memory of a computer, said FID table containing file names, associated categories, and file locations (please see Lewak, column 6 lines 17-22, column 7 lines 39-42; compare with claim 45).

In regard to dependent claim 47, Lewak teaches a method whereby a file is categorized using a File Control Manager program, said program containing a File Identification table with file locations associated with file names (please see Lewak column 1 lines 28-29, 41-45, column 6 lines 17-22, column 8 lines 1-5). Lewak does not specifically teach a method of identifying excluded folders to be excluded

Art Unit: 2776

from classification. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate excluded folders, because the method of exclusion is exemplified with search filter definitions, in which categories that find no data are excluded from subsequent pick list possibilities (please see Lewak column 10 lines 25-37; compare with claim 47). The taught advantage of exclusion provides increased categorical efficiency to the FID method as taught by Lewak.

In regard to dependent claim 48, Claim 48 incorporates substantially similar subject matter as claimed in claim 20, and in further view of the following, is rejected as such.

Lewak teaches a method of a FID table containing the last update time and date for a file (please see Lewak column 6 lines 17-22; compare with claim 48 *"determining a time of a last step of re-training"*).

In addition, Lewak also teaches a method whereby, for each closed file, a conditional categorization is performed by checking if an FID entry exists with the same creation time and date, subsequently opening the Categories Window if time/date is not the same (please see Lewak column 8 lines 7-15; compare with claim 48 *"retraining the classifier"*, and *"modified after the determined time"*). Lewak does not specifically teach a method of retraining the classifier on each folder. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate the use of folders, because initial displayed editable category types is an example of the contents of a displayed file Manager (please see Lewak column 8 lines 39-44; compare with claim 48 *"on each folder"*). The inclusion of folders provides increased order to the retraining method taught by Lewak.

Art Unit: 2776

In regard to dependent claim 49, claim 49 incorporates substantially similar subject matter as claimed in claims 20, 44 and 48, and is rejected as such.

In regard to dependent claim 50, Lewak teaches a method whereby a file is categorized using a File Control Manager program (please see Lewak column 8 lines 1-5). Lewak does not specifically teach a method whereby the classifying step uses the TF-IDF principle. However, Herz teaches a method whereby a preferred adaptation/learning method is the TF-IDF principle (please see Herz column 14 lines 10-12; compare with claim 50). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the TF-IDF method of Herz to the method of Lewak, because of Herz's taught advantage of adaptive weighting schemes, providing increased versatility to the categorization method as taught by Lewak.

In regard to dependent claim 51, Lewak discloses a method whereby an opened file is categorized by an FC system through the use of a "Categorize" command (please see Lewak column 8 lines 1-5). Lewak does not specifically teach a method wherein an electronic document is an e-mail message. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate e-mail messages, because "E-Mail" is an example of a category disclosed by Lewak (please see Lewak, column 15 lines 39-46; compare with claim 51). The incorporation of e-mail messages provides increased versatility to the categorization method as taught by Lewak.

In regard to dependent claim 60, Lewak teaches a method whereby a File Control Manager is invoked by opening and saving a file (please see Lewak, column 7 lines 55-60). Lewak does not

Art Unit: 2776

specifically teach a method whereby an electronic document comprises data sets that are not entirely viewable, but categorizable nevertheless. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate categorizable, yet partially hidden data sets, because shortening category description lists is an example of managing a higher level hierarchy to manage limited subsets of a complete category list, providing increased category manageability to the file method as disclosed by Lewak (please see Lewak, column 9 lines 60-67, column 10 lines 1-5; compare with claim 60).

In regard to dependent claim 61, Lewak teaches a method whereby category descriptions are stored as records of a random access data base file (please see Lewak column 5 lines 40-43; compare with claim 61).

15. **Claims 37-43, 46, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak and Herz as applied to claim 11 above, and further in view of Lang et al. (hereinafter Lang), U.S. Patent No. 5,867,799 issued February 1999.**

In regard to dependent claim 37, Lewak teaches a method whereby a file is categorized using a File Control Manager program, said program containing a File Identification table with file locations associated with file names (please see Lewak column 1 lines 28-29, 41-45, column 6 lines 17-22, column 8 lines 1-5; compare with claim 37 “...for each folder...” and “...a subset of folders...”). Lewak does not specifically teach a method whereby the classifying step comprises the steps of tokenizing, tallying/comparing occurrences, computing token weights, creating similarity scores, and identifying folder

Art Unit: 2776

subsets. However, Lang teaches a method of tokenizing a document into tokens (please see Lang column 10 lines 31-33, Figure 5 box 301; compare with claim 37).

Lang also discloses a method of computing the term frequency (TF) of a token within a document (see Lang column 10 lines 22-23, 29-33; compare with claim 37 line 3).

Lang also teaches a method of a computed token weight for a given document (IDF) by multiplying the term frequency by the inverse of the document frequency (please see Lang column 10 lines 36-38; compare with claim 37 line 4, "*computing...*" and "*...a token weight of each token.*").

Lang also teaches a method of comparing a term frequency (TF) and a token weight (IDF) by analyzing the cosine between the computed vectors, the related example disclosed pertains to a single word, or token, from two documents (please see Lang column 10 lines 50-56, column 23 lines 50-52; compare with claim 37, line 5).

Lang also teaches a method of a similarity measure between TF-IDF vectors (please see Lang column 10 lines 50-52, column 23 lines 48-57; compare with claim 37 line 6).

Lang also teaches a method of self-optimization in the form of a highest credibility value, said value dependent upon a TF-IDF technique (please see Lang column 14 lines 8-22; compare with claim 37 line 7, "*identifying...*", and "*...for which the similarity score is highest.*").

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the TF-IDF related methods of Lang as taught above, to the methods disclosed by Lewak, because of Lang's taught advantage of adaptive weighting schemes, providing increased predictive accuracy to the categorization and folder methods as disclosed by Lewak.

Art Unit: 2776

In regard to dependent claim 38, with reference to the rejection of claim 37, Lewak does not specifically teach a method of removing folders for which a similarity score is lower than a specified threshold. However, Lang teaches a method of parsing articles, and throwing out tokens occurring less than a preselected threshold (please see Lang column 12 lines 58-59; compare with claim 38). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the method of Lang to the method of Lewak, because of Lang's taught advantage of selective analyzing, providing increased selective accuracy to the categorization and folder methods as disclosed by Lewak.

In regard to dependent claim 39, claim 39 incorporates substantially similar subject matter as claimed in claim 37, and is rejected as such.

In regard to dependent claim 40, claim 40 incorporates substantially significant subject matter as claimed in claim 37, and in further view of the following, is rejected as such.

Lewak teaches a method of categorizing an open file by invoking a File Control Manager via a "Categorize" button, said manager containing a FID table with a set of columns labeled by file names and file locations (please see Lewak column 6 lines 17-22, column 8 lines 1-5). Lewak does not specifically teach a method of separately tokenizing/labeling portions of a document. However, Lang teaches a method for extracting information from a data stream, using at least a portion of each of a user profile (please see Lang column 5 lines 61-67, column 6 lines 1-3; compare with claim 40). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the portioning method as taught by Lang to the method of Lewak, because of Lang's taught advantage of partitioning, providing increased file analyzation selectivity to the file method as taught by Lewak.

Art Unit: 2776

In regard to dependent 41, claim 41 incorporates substantially significant subject matter as claimed in claims 37 and 39, and in further view of the following, is rejected as such.

With reference to the rejection of claim 37, Lewak does not specifically teach a method of adding the number of occurrences of each token to a tokencount of a tofolder. However, Lang teaches a method of a term frequency, which is the number of times a token appears in a document (please see Lang column 10 lines 30-34; compare with claim 41 "...adding the number of occurrences of each token..."). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the token count method of Lang to the file name/location association method of Lewak, because of Lang's taught advantage of token counts, providing increased statistical information to the File Control method as taught by Lewak.

In regard to dependent claim 42, claim 42 incorporates substantially significant subject matter as claimed in claim 41, and in further view of the following , is rejected as such.

With reference to the rejection of claim 41, Lewak does not specifically teach a method of subtracting the number of occurrences of each token of the fromfolder. However, Lang teaches a method whereby upon parsing of a training set, a specified number of the most frequent tokens are thrown out (subtracted) from the set (please see Lang column 12 lines 58-59; compare with claim 42 "...*subtracting the number of occurrences of each token from the tokencount of the fromfolder.* "). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the token subtraction method of Lang to the file name/location association method of Lewak, because of Lang's taught advantage of token subtraction, providing increased statistical accuracy to the File Control method as taught by Lewak.

Art Unit: 2776

In regard to dependent claim 43, claim 43 reflects the combined subject matter of claims 41 and 42, and is rejected as such.

In regard to dependent claim 46, claim 46 incorporates substantially similar subject matter as claimed in claim 41, and is rejected as such.

16. **Claims 52, 56-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak and Herz as applied to claim 11 above, and further in view of Using Netscape (hereinafter Netscape), 1995 Que Corporation pp. 55, 67.**

In regard to dependent claim 52, Lewak teaches a method whereby an opened file is categorized by an FC system through the use of a "Categorize" command (please see Lewak column 8 lines 1-5). Lewak does not specifically teach a method wherein an electronic document is a web page and the collection is a set of bookmarks. However, Netscape teaches a method of a bookmark file presented as a web page (please see Netscape p.67, 3rd paragraph, Figure 4.4; compare with claim 52). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the web page and bookmark method as disclosed by Netscape to the method of Lewak, because of Netscape's taught advantage of World Wide Web and bookmarking compatibility, providing increased Internet adaptation and file retrieval to the file categorization method as taught by Lewak.

Art Unit: 2776

In regard to dependent claim 56, Lewak teaches a method whereby an opened file is categorized by an FC system through the use of a "Categorize" command (please see Lewak column 8 lines 1-5). Lewak does not specifically teach a method wherein an electronic document is a multimedia document. However, Netscape teaches a method of a web page containing graphics, text, and sound (please see Netscape p.55, Playing Linked Sound Files, Figure 3.9; compare with claim 56). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the web graphic/sound/text method as disclosed by Netscape to the method of Lewak, because of Netscape's taught advantage of World Wide Web multimedia compatibility, providing increased Internet adaptation to the file categorization method as taught by Lewak.

In regard to dependent claims 57-59, claims 57-59 incorporates substantially significant subject matter as claimed in claim 56, and is rejected as such.

17. **Claims 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak, Herz, and Lang as applied to claims 26, 29, 32 above, and further in view of Netscape.**

In regard to dependent claim 53, claim 53 incorporates substantially similar subject matter as claimed in claim 52, and is rejected as such. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the web page and bookmark method as taught by Netscape to the method of Lewak, because of Netscape's taught advantage of World Wide Web and bookmarking compatibility, providing increased Internet adaptation and file retrieval to the file categorization method as taught by Lewak.

Art Unit: 2776

In regard to dependent claim 54, claim 54 incorporates substantially similar subject matter as claimed in claim 53, and is rejected as such.

In regard to dependent claim 55, claim 55 incorporates substantially significant subject matter as claimed in claim 54, and is rejected as such.

Response to Arguments

18. Applicant's arguments with respect to claim 11 has been considered but is moot in view of the new ground(s) of rejection. However, the Examiner will answer Applicant's arguments to the best of his ability.

The Examiner thanks the Applicant for including a full set of currently pending claims in the amendment.

Applicant argues on p.14 of the amendment that Lewak does not provide sufficient information to teach one skilled in the art the manner in which to automate the process of categorizing files. Lewak teaches a system of document filing, whereby documents are placed in hybred folders. The names of these folders are presented to the user in the GUI as presented in Figure 5 of Lewak. These names reflect different categories various documents are filed. Through word pattern correlation, Lewak automatically suggests various file categories subsequent to said correlation (please see Lewak column 9 lines 50-55). The teaching of a "classifier" within Lewak is implied. The invention of Lewak involves the categorization of documents, therefore, it is implied that some form of classifier to classify (or categorize) documents is used to implement the invention of Lewak.

Applicant further argues on p.14 (also repeated on various pages) of the amendment that Lewak does not teach the use of an incrementally retrained classifier for classification. The retraining step is now

Art Unit: 2776

taught by Herz, which teaches the dynamic updating of user summary data to reflect changing interests. The method of dynamically updating profiles for select articles of interest, when applied to the classifier (or categorizer) as taught by Lewak (especially Figure 5), suggests the limitations of amended claim 11.

Applicant argues on p.12 of the amendment that Lewak does not teach shortcuts (claim 12). The Examiner notes that Lewak teaches an example category of E-mail, which is defined as being linked to other categories. As a user chooses category E-mail, other related categories are subsequently displayed, therefore a shortcut to the other categories is created by the E-mail category (please see Lewak column 15 lines 39-51).

Applicant also argues on p.16 of the amendment that Lewak does not teach the automated system classification of claim 13. The Examiner notes that Lewak does teach the automatic categorization of a file as "uncategorized" if not previously categorized (please see Lewak column 7 lines 63-66). This suggests an automated system of classification.

Applicant further argues on p.16 of the amendment that Lewak does not teach a window displayed with a document. Lewak suggests the concurrent display of a document along with a categorizing window by teaching a method of categorizing a file which is opened, at the point of a first save. This suggests that a document is opened and being edited within Lewak's teaching of a displayed categorizing window (please see Lewak column 7 lines 55-67).

Applicant argues on p.17 of the amendment that Lewak does not teach the display of suggested categories before the actual column lists. The Examiner notes that Lewak Figure 5 discloses a "Full Lists" check box, which suggests that the GUI of Lewak can be started first with a list other than a full complete list of categories. As is explained above, the limitation of a suggested (or most likely) list is now taught by Herz and applied to Lewak.

Art Unit: 2776

Applicant further argues on p.17 of the amendment that Lewak does not teach the classifying step of the automated classifier occurs substantially simultaneously with the displaying step. The Examiner notes that Lewak teaches the opening of an FC manager subsequent to operation of a categorize button on a currently opened file. Automization of this process is suggested by Lewak via automatic categorization of a file as "uncategorized" if not previously categorized (please see Lewak column 7 lines 63-66).

Applicant argues on p.18 of the amendment that Lewak does not teach the training of a classifier from scratch. The Examiner respectfully notes that Lewak teaches the initialization of data structures, which suggests beginning Lewak's classifier from scratch. Training of said classifier is now taught by Herz, and is applied to Lewak.

Applicant argues on p.19 of the amendment that Lewak does not teach a shortcut list in combination with a full/standard list for choosing. The Examiner notes that Lewak Figure 5 teaches a GUI whereby various file groupings are visually present simultaneously. This suggests that various combinations of lists can be displayed accordingly.

Applicant further argues on p.19 of the amendment that Lewak does not teach the use of exclusion folders in a classifier. The Examiner notes that Lewak teaches that categories (represented as folders) can be excluded from pick list possibilities under certain conditions (please see Lewak, bottom of abstract). This suggests the exclusion of various folders from consideration.

Applicant argues on p.19 regarding combination of references. The Examiner respectfully notes that Lewak, Lang, Herz, and Netscape are from the same field of endeavor, that is the computer science and document processing/presentation art. The Examiner uses Netscape to teach the limitations regarding web pages and bookmarks. Lang is used to teach the limitations relating to TF-IDF (which is additionally taught in the Herz reference). The current rejections involving Lang apply TF-IDF to the classifier as

Art Unit: 2776

taught by Lewak, Lang and Herz use TF-IDF for documents. Likewise, Lewak analyzes document files for categorization.

Applicant's amendment and successful argument regarding claim 22 (canceled and incorporated into independent claim 11) has necessitated a new round of rejections by the Examiner. In particular, the 102(b) rejections have been dropped, and a new reference, Herz, is introduced to teach the training and retraining steps of amended claim 11. Accordingly, this action is made non-final.

Conclusion

19. Prior art made of record and not relied upon is considered pertinent to disclosure.

Conrad et al.	U.S. Patent No. 6,028,605	issued	February	2000
Miller et al.	U.S. Patent No. 5,899,995	issued	May	1999
Parry et al.	U.S. Patent No. 6,047,277	issued	April	2000

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bashore whose telephone number is (703) 308-5807. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached on (703) 305-4713. The fax number to this art unit is (703) 308-6606.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Art Unit: 2776

21. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

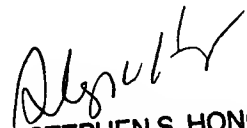
(703) 308-9051, (for formal communications intended for entry)

or:

(703) 305-9724 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

**Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).**

William L. Bashore
7/19/2000


STEPHEN S. HONG
PRIMARY EXAMINER